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- Declaration under Rule 4.17:**

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[Continued on next page]

(57) Abstract: The following invention relates to an injector-burner for applications in the metalwork field, in particular for use in electric arc furnace melting processes having a frontal head with two series of holes arranged in two concentric crowns, the inner crown of holes used to feed fuel and the outer crown used to supply a supporter of combustion. A central hole is also provided, which is fitted with an oxygen injection nozzle. The holes of the two crowns are divided into groups separated by circular sectors without holes, in order to create a number of flames and are inclined in such a way as to give the gases supplied, and consequentially the flame generated, a rotation around the injector-burner axis. By regulating the flow-rates of the fuel and the supporter of combustion supplied to the various holes, the injector-burner is able to regulate the flame shape in burner mode and also in injection mode, thus guaranteeing optimum performance in all modes.

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INTERNATIONAL SEARCH REPORT

International Application No.
PCT/EP 03/07431

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C21C5/52

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C21C F23D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 289 677 B1 (SAMPATH PARTHASARATHY ET AL) 18 September 2001 (2001-09-18) cited in the application column 3, line 4 -column 4, line 20; figures 3,4A,6,7	1-27
A	GB 2 064 094 A (BABCOCK PROD ENG) 10 June 1981 (1981-06-10) cited in the application claims 1,2; figures page 1, right-hand column, line 66 - line 105	1-27
A	US 6 322 610 B1 (MORSUT STEFANO ET AL) 27 November 2001 (2001-11-27) the whole document	1-27
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *Z* document member of the same patent family

Date of the actual completion of the international search

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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